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HIGHLIGHTS FROM THE WORLDWIDE SURVEY OF NONMEDICAL DRUG USE AND--ETC(U)

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HIGHLIGHTS FROM THE WORLDWIDE
SURVEY OF NONMEDICAL DRUG USE
AND ALCOHOL USE AMONG
MILITARY PERSONNEL: 1980

by:

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November 14, 1980

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This survey report provides a comprehensive, detailed and accurate estimate of the prevalence of drug and alcohol use among the active duty military population as well as information on the physical, social and work-related consequences of drug and alcohol use in the subject population. It was found that abuse correlates generally with: (1) younger age, (2) being unmarried, (3) lower educational attainment, and (4) being male. The drug most commonly used is			

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alcohol followed by cannabis, amphetamines, cocaine, and hallucinogens. Phencyclidine and heroin were found to be the least used drugs. Nineteen percent of the junior enlisted men reported being high on drugs while working at some time during the previous year while 15% said they have been drunk while working sometime during the year. However, overall and with the exception of cannabis use, drug use in the military population has shown a decline since 1974, the year of the last worldwide survey.

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ERRATA SHEET

The following corrections should be made to the report, "HIGHLIGHTS FROM THE WORLDWIDE SURVEY OF NONMEDICAL DRUG USE AND ALCOHOL USE AMONG MILITARY PERSONNEL: 1980" by Burt Associates, Inc., dated 14 November 1980 (Contract No. MDA 903-79-C-0667).

1. Page 18, Table 15. Change third CONSEQUENCE to read:

TOTAL WITH EITHER OF THE 2 CONSEQUENCES

2. Page 22, Table 19. Change the BEVERAGE/FREQUENCY category to read:

BEVERAGE 1 QUANTITY

3. Page 25, Table 23. Delete PAYGRADE.

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Section 1: INTRODUCTION

This report is intended primarily to provide highlights of the results of a 1980 survey of nonmedical drug use and alcohol use among military personnel. Estimates are provided of the prevalence and consequences of nonmedical drug use and alcohol use among the active duty military population. The prevalence rates are compared with those obtained on a comparable civilian subpopulation. The findings are reported in statistical terms and can serve as an empirical basis for the formulation of policies and programs for the prevention and treatment of drug and alcohol abuse in the Military Services. More detailed findings are presented in the main report.¹

The survey is focused on nonmedical use of nine types of drugs and on use of three types of alcoholic beverages. Samples of 81 installations, worldwide, and 19,582 active duty personnel at these installations were randomly selected. The selection was made from all personnel in pay grades E1 through O6 in each of the four Services. Ninety-three percent of the eligible sample completed the multiple choice format questionnaire in group sessions proctored solely by the study team of Burt Associates, Incorporated. Additional details on the sampling design, population characteristics, number of respondents, and confidence intervals are summarized in the Technical Note at the end of this report.

In Section 2, summary findings are presented on current (past 30 days) and annual (past 12 months) nonmedical use of drugs and on the physical, social and work-related consequences of drug use. Similar information on alcohol use is highlighted in Section 3. The data are often presented for the total respondent group, by Service, and pay grade group.

Comparisons between prevalence data in this survey and the most recent survey of the civilian population are summarized in Section 4.

¹Marvin R. Burt and Mark M. Biegel, Worldwide Survey of Nonmedical Drug Use and Alcohol Use Among Military Personnel: 1980 (Bethesda, Maryland: Burt Associates, Incorporated), 1980.

Section 2: NONMEDICAL DRUG USE - PREVALENCE
AND CONSEQUENCES AMONG MILITARY PERSONNEL

"Nonmedical drug use" is defined, for the purpose of this survey, as the use of drugs for nonmedical purposes, that is, for highs, for thrills, to relax, to give insight, or for pleasure. The nonmedical use of drugs is common throughout broad segments of American society. Concern has been expressed about the extent to which military personnel engage in nonmedical drug use and the consequence of such use in terms of their individual well-being and their work performance. The survey results address these concerns.

Prevalence

The nine drug types used for prevalence estimates are listed below, together with verbatim examples from the questionnaire:

<u>DRUG</u>	<u>EXAMPLE</u>
Marijuana.....	"Pot," "Grass"
Hashish.....	"Hash"
PCP.....	"Angel Dust"
Other Hallucinogens.....	LSD, Mescaline, Peyote, STP, DOM, DMT, Psilocybin
Cocaine.....	"Coke," "Snow"
Amphetamines.....	Benzedrine, "Bennies," Methadrine, Dexedrine, "Speed"
Other Uppers.....	Preludin, Ritalin, Sandrex
Tranquilizers.....	Valium, Librium, Miltown
Barbiturates.....	Seconal (reds), Nembutal (yellows), Amytal (blues)
Other Downers.....	Quaalude (Sopors), Optimil, Doriden, Placidyl, Methaqualone
Heroin.....	"Smack," "Scag," "Horse"
Other Opiates.....	Morphine, Opium, Demerol, Codeine, Methadone

Table 1 shows that over one-fourth (27 percent) of the military personnel reported they had used some type of drug or drugs nonmedically in the past 30 days; over one-third (36 percent) reported such use within the past 12 months. The figures for marijuana or hashish use are much the same as those for "any drug use," indicating that nearly all users of nonmedical drugs used at least marijuana or hashish. None of the other eight drug types (listed in rank order of prevalence of use) approaches marijuana or hashish in popularity.

The percentages of military personnel reporting use of each drug weekly or more frequently than weekly during the past 30 days are shown in Table 2. Clearly, there are substantially fewer regular users (i.e., persons using weekly or more frequently) than occasional users. For example, while 36 percent reported use of marijuana or hashish during the past year, 27 percent reported use during the past 30 days and 19 percent reported use at least once a week during the past 30 days. This pattern generally holds for all the drug types (except that there is no difference between non-medical use of barbiturates during the past 30 days and at least once a week). Thus, it can be concluded that the overwhelming majority of nonmedical drug use in the military is occasional or experimental in nature.

Prevalence rates vary by Service and region. It has not been established to what extent some or all of these variations are attributable to the different composition of the personnel in the four Services.¹

Nonmedical drug use is limited primarily to personnel in the E1-E5 pay grade group (Tables 3 and 4), a phenomenon that may be attributable to the comparatively younger age of junior enlisted personnel. Patterns of use by drug and Service among E1-E5's are similar to those noted for the total respondent group.

Tables 5 through 13 depict the current prevalence for each of the nine drug types by Service, pay grade group, and geographical region. In general, current prevalence rates for each drug type are as high or higher in CONUS than in other regions.

¹Drug prevalence correlates strongly with lower adult age, being unmarried, being male, and lower educational attainment. To the extent that a Service has a higher proportion of personnel with these characteristics, it can be expected to have a higher prevalence of nonmedical drug use.

TABLE 1
POPULATION USING EACH DRUG
(PERCENTAGE)

DRUG TYPE/ USE PERIOD	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
ANY DRUG USE					
PAST 30 DAYS	27	29	33	37	14
PAST 12 MONTHS	36	38	43	47	23
MARIJUANA, HASHISH					
PAST 30 DAYS	26	28	32	36	14
PAST 12 MONTHS	35	37	42	47	22
AMPHETAMINES OR OTHER UPPERS					
PAST 30 DAYS	6	6	10	8	3
PAST 12 MONTHS	13	12	19	19	6
COCAINE					
PAST 30 DAYS	4	4	7	8	1
PAST 12 MONTHS	11	10	17	19	5
HALLUCINOGENS (OTHER THAN PCP)					
PAST 30 DAYS	3	2	5	7	1
PAST 12 MONTHS	8	7	12	15	3
TRANQUILIZERS					
PAST 30 DAYS	2	2	3	2	1
PAST 12 MONTHS	6	5	9	7	2
BARBITURATES OR OTHER DOWNERS					
PAST 30 DAYS	2	3	3	3	1
PAST 12 MONTHS	6	6	8	9	3
OPIATES (OTHER THAN HEROIN)					
PAST 30 DAYS	1	2	2	2	+
PAST 12 MONTHS	4	4	5	6	1
PCP					
PAST 30 DAYS	1	1	1	3	+
PAST 12 MONTHS	4	4	5	10	1
HEROIN					
PAST 30 DAYS	1	1	1	+	+
PAST 12 MONTHS	2	3	1	1	+

+ LESS THAN HALF OF ONE PERCENT.

TABLE 2
 FREQUENCY OF USING DRUG NONMEDICALLY AT
 LEAST ONCE A WEEK DURING THE PAST 30 DAYS--TOTAL DOD
 (PERCENTAGE OF POPULATION)

DRUG TYPES	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
MARIJUANA/HASHISH	19	23	24	29	10
AMPHETAMINES OR OTHER UPPERS	3	3	5	4	1
COCAINE	2	1	3	3	+
BARBITURATES OR OTHER DOWNERS	1	2	1	1	+
HALLUCINOGENS (OTHER THAN PCP)	1	1	2	2	+
TRANQUILIZERS	1	1	1	2	1
OPIATES (OTHER THAN HEROIN)	+	1	1	1	+
PCP	+	+	+	1	+
HEROIN	+	+	+	+	+

+ LESS THAN HALF OF ONE PERCENT.

TABLE 3

POPULATION USING EACH DRUG--BY PAY GRADE GROUP
(PERCENTAGE)

DRUG TYPE/ USE PERIOD	TOTAL DOD	PAY GRADES				
		E1-E5	E6-E9	W1-W4	01-03	04-06
ANY DRUG USE						
PAST 30 DAYS	27	38	5	3	4	1
PAST 12 MONTHS	36	50	9	4	9	2
MARIJUANA/HASHISH						
PAST 30 DAYS	26	37	4	3	3	1
PAST 12 MONTHS	35	49	9	3	8	1
AMPHETAMINES OR OTHER UPPERS						
PAST 30 DAYS	6	9	1	0	+	+
PAST 12 MONTHS	13	19	2	0	1	+
COCAINE						
PAST 30 DAYS	4	7	+	0	+	0
PAST 12 MONTHS	11	17	1	2	+	+
HALLUCINOGENS (OTHER THAN PCP)						
PAST 30 DAYS	3	5	+	0	+	0
PAST 12 MONTHS	8	12	1	0	+	+
TRANQUILIZERS						
PAST 30 DAYS	2	3	+	0	+	0
PAST 12 MONTHS	6	8	1	+	1	+
BARBITURATES OR OTHER DOWNERS						
PAST 30 DAYS	2	3	+	0	+	0
PAST 12 MONTHS	6	8	1	0	1	0
OPIATES (OTHER THAN HEROIN)						
PAST 30 DAYS	1	2	+	0	+	0
PAST 12 MONTHS	4	5	+	0	+	+
PCP						
PAST 30 DAYS	1	1	+	0	0	0
PAST 12 MONTHS	4	6	+	0	+	0
HEROIN						
PAST 30 DAYS	1	1	+	0	0	0
PAST 12 MONTHS	2	2	+	0	0	+

+ LESS THAN HALF OF ONE PERCENT.

TABLE 4
POPULATION OF E1-E5'S USING EACH DRUG BY SERVICE
(PERCENTAGE)

DRUG TYPE/ USE PERIOD	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
ANY DRUG USE					
PAST 30 DAYS	38	41	48	48	21
PAST 12 MONTHS	50	53	59	61	33
MARIJUANA/HASHISH					
PAST 30 DAYS	37	40	47	47	20
PAST 12 MONTHS	49	52	58	60	32
AMPHETAMINES OR OTHER UPPERS					
PAST 30 DAYS	9	8	15	10	4
PAST 12 MONTHS	19	17	28	25	9
COCAINE					
PAST 30 DAYS	7	6	11	10	2
PAST 12 MONTHS	17	15	25	26	8
HALLUCINOGENS (OTHER THAN PCP)					
PAST 30 DAYS	5	3	7	10	2
PAST 12 MONTHS	12	10	18	21	5
TRANQUILIZERS					
PAST 30 DAYS	3	3	4	3	1
PAST 12 MONTHS	8	8	13	9	3
BARBITURATES OR OTHER DOWNERS					
PAST 30 DAYS	3	4	5	4	1
PAST 12 MONTHS	8	8	12	11	4
OPIATES (OTHER THAN HEROIN)					
PAST 30 DAYS	2	2	2	2	1
PAST 12 MONTHS	5	6	7	7	2
PCP					
PAST 30 DAYS	1	2	2	4	+
PAST 12 MONTHS	6	6	7	13	1
HEROIN					
PAST 30 DAYS	1	2	1	+	+
PAST 12 MONTHS	2	4	2	1	1

+ LESS THAN HALF OF ONE PERCENT.

TABLE 5

POPULATION USING MARIJUANA/HASHISH
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	27	29	34	39	14
E1-E5.....	39	41	48	51	21
E6-E9.....	5	6	6	5	3
O1-O3.....	3	5	2	6	2
O4-O6.....	1	0	0	0	1
EUROPE					
TOTAL.....	23	28	18	*	13
E1-E5.....	33	39	27	*	20
E6-E9.....	2	3	3	*	1
O1-O3.....	3	6	0	*	0
O4-O6.....	0	-	0	*	0
PACIFIC					
TOTAL.....	21	20	24	28	14
E1-E5.....	32	36	42	36	19
E6-E9.....	4	3	5	5	3
O1-O3.....	4	5	6	-	4
O4-O6.....	2	0	-	-	4
OTHER LOCATIONS					
TOTAL.....	22	29	21	*	13
E1-E5.....	32	38	33	*	19
E6-E9.....	4	8	3	*	0
O1-O3.....	4	-	-	*	-
O4-O6.....	0	-	-	*	-
TOTAL WORLDWIDE					
TOTAL.....	26	28	32	36	14
E1-E5.....	37	40	47	47	20
E6-E9.....	4	5	6	5	2
W1-W4.....	3	5	0	-	*
O1-O3.....	3	5	2	5	2
O4-O6.....	1	0	0	2	1

- LESS THAN 30 RESPONDENTS.

* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 6

POPULATION USING PCP
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL OOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	1	1	1	3	+
E1-E5.....	2	2	2	4	+
E6-E9.....	+	+	+	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
EUROPE					
TOTAL.....	1	1	+	+	+
E1-E5.....	1	1	+	+	+
E6-E9.....	0	0	0	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
PACIFIC					
TOTAL.....	1	1	1	1	0
E1-E5.....	1	1	1	2	0
E6-E9.....	0	0	0	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
OTHER LOCATIONS					
TOTAL.....	+	+	0	0	0
E1-E5.....	0	0	0	0	0
E6-E9.....	+	1	0	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
TOTAL WORLDWIDE					
TOTAL.....	1	1	1	3	+
E1-E5.....	1	2	2	4	+
E6-E9.....	+	+	0	0	0
W1-W4.....	0	0	0	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.

- LESS THAN 30 RESPONDENTS.

0 NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 7

POPULATION USING HALLUCINOGENS (OTHER THAN PCP)
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL	4	2	6	8	1
E1-E5	5	4	8	11	2
E6-E9	+	0	1	0	0
O1-O3	+	0	0	1	0
O4-O6	0	0	0	0	0
EUROPE					
TOTAL	2	2	+	+	1
E1-E5	2	3	+	+	1
E6-E9	0	0	0	+	0
O1-O3	0	0	0	+	0
O4-O6	0	-	0	+	0
PACIFIC					
TOTAL	2	2	2	5	1
E1-E5	4	3	5	7	1
E6-E9	+	0	0	1	0
O1-O3	+	0	1	-	0
O4-O6	0	0	-	-	0
OTHER LOCATIONS					
TOTAL	1	3	1	+	0
E1-E5	2	4	1	+	0
E6-E9	0	0	0	+	0
O1-O3	0	-	-	+	-
O4-O6	0	-	-	+	-
TOTAL WORLDWIDE					
TOTAL	3	2	5	7	1
E1-E5	5	3	7	10	2
E6-E9	+	0	1	+	0
W1-W4	0	0	0	-	+
O1-O3	+	0	+	1	0
O4-O6	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.

- LESS THAN 30 RESPONDENTS.

* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 8

POPULATION USING COCAINE
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	5	4	8	8	1
E1-E5.....	7	6	11	11	2
E6-E9.....	+	+	1	0	0
O1-O3.....	+	0	+	1	0
O4-O6.....	0	0	0	0	0
EUROPE					
TOTAL.....	3	4	+	*	2
E1-E5.....	4	5	1	*	2
E6-E9.....	+	+	0	*	0
O1-O3.....	0	0	0	*	0
O4-O6.....	C	-	0	*	0
PACIFIC					
TOTAL.....	4	3	6	6	+
E1-E5.....	6	5	10	8	+
E6-E9.....	1	1	1	0	1
O1-O3.....	0	0	0	-	0
O4-O6.....	0	0	-	-	0
OTHER LOCATIONS					
TOTAL.....	4	6	2	*	2
E1-E5.....	6	8	4	*	3
E6-E9.....	+	1	0	*	0
O1-O3.....	0	-	-	*	-
O4-O6.....	0	-	-	*	-
TOTAL WORLDWIDE					
TOTAL.....	4	4	7	8	1
E1-E5.....	7	6	11	10	2
E6-E9.....	+	+	1	0	+
W1-W4.....	0	0	0	-	+
O1-O3.....	+	0	+	1	0
O4-O6.....	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.
- LESS THAN 30 RESPONDENTS.
* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 9

POPULATION USING AMPHETAMINES OR OTHER UPPERS
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	7	6	12	9	3
E1-E5.....	10	8	17	11	4
E6-E9.....	1	1	1	1	1
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
EUROPE					
TOTAL.....	5	6	3	*	2
E1-E5.....	7	9	5	*	3
E6-E9.....	1	1	0	*	0
O1-O3.....	+	0	3	*	0
O4-O6.....	0	-	0	*	0
PACIFIC					
TOTAL.....	4	3	4	4	3
E1-E5.....	6	6	7	6	4
E6-E9.....	+	0	0	1	1
O1-O3.....	1	2	1	-	1
O4-O6.....	+	0	-	-	2
OTHER LOCATIONS					
TOTAL.....	4	6	4	*	2
E1-E5.....	6	7	7	*	2
E6-E9.....	+	1	0	*	0
O1-O3.....	0	-	-	*	-
O4-O6.....	0	-	-	*	-
TOTAL WORLDWIDE					
TOTAL.....	6	6	10	8	3
E1-E5.....	9	8	15	10	4
E6-E9.....	1	1	1	1	1
W1-W4.....	0	0	0	-	*
O1-O3.....	+	+	+	0	+
O4-O6.....	+	0	0	0	+

+ LESS THAN HALF OF ONE PERCENT.
- LESS THAN 30 RESPONDENTS.
* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 10
POPULATION USING TRANQUILIZERS
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONJS					
TOTAL.....	2	2	3	2	1
E1-E5.....	3	3	4	3	1
E6-E9.....	1	+	2	0	0
O1-O3.....	+	+	0	0	0
O4-O6.....	0	0	0	0	0
EUROPE					
TOTAL.....	2	3	3	*	1
E1-E5.....	3	4	5	*	2
E6-E9.....	+	0	0	*	1
O1-O3.....	0	0	0	*	0
O4-O6.....	+	-	0	*	1
PACIFIC					
TOTAL.....	2	2	2	3	1
E1-E5.....	3	4	4	3	1
E6-E9.....	+	0	0	1	0
O1-O3.....	0	0	0	-	0
O4-O6.....	0	0	-	-	0
OTHER LOCATIONS					
TOTAL.....	2	3	3	*	0
E1-E5.....	3	4	4	*	0
E6-E9.....	1	2	4	*	0
O1-O3.....	3	-	-	*	-
O4-O6.....	0	-	-	*	-
TOTAL WORLDWIDE					
TOTAL.....	2	2	3	2	1
E1-E5.....	3	3	4	3	1
E6-E9.....	+	+	1	+	+
W1-W4.....	0	0	0	-	+
O1-O3.....	+	+	+	0	0
O4-O6.....	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.

- LESS THAN 30 RESPONDENTS.

* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE II
POPULATION USING BARBITURATES OR OTHER DOWNERS
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL	2	2	3	3	1
E1-E5	3	3	5	4	1
E6-E9	+	0	1	0	0
O1-O3	1	1	0	1	0
O4-O6	0	0	0	0	0
EUROPE					
TOTAL	2	3	2	*	1
E1-E5	3	4	2	*	1
E6-E9	0	0	0	*	0
O1-O3	0	0	0	*	0
O4-O6	0	-	0	*	0
PACIFIC					
TOTAL	2	2	2	3	1
E1-E5	3	4	4	4	1
E6-E9	0	0	0	0	0
O1-O3	0	0	0	-	0
O4-O6	0	0	-	-	0
OTHER LOCATIONS					
TOTAL	2	2	3	*	1
E1-E5	3	3	6	*	1
E6-E9	0	0	0	*	0
O1-O3	0	-	-	*	-
O4-O6	0	-	-	*	-
TOTAL WORLDWIDE					
TOTAL	2	3	3	3	1
E1-E5	3	4	5	4	1
E6-E9	+	0	1	0	0
W1-W4	0	0	0	-	0
O1-O3	+	1	0	1	0
O4-O6	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.
- LESS THAN 30 RESPONDENTS.
* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 12

POPULATION USING HEROIN
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	1	1	1	+	+
E1-E5.....	1	1	1	+	+
E6-E9.....	+	0	+	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
EUROPE					
TOTAL.....	2	3	0	*	1
E1-E5.....	3	4	0	*	1
E6-E9.....	0	0	0	*	0
O1-O3.....	0	0	0	*	0
O4-O6.....	0	0	0	*	0
PACIFIC					
TOTAL.....	+	1	1	+	+
E1-E5.....	1	1	1	+	+
E6-E9.....	0	0	0	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0
OTHER LOCATIONS					
TOTAL.....	+	0	0	*	+
E1-E5.....	+	0	0	*	+
E6-E9.....	0	0	0	*	0
O1-O3.....	0	0	0	*	0
O4-O6.....	0	0	0	*	0
TOTAL WORLDWIDE					
TOTAL.....	1	1	1	+	+
E1-E5.....	1	2	1	+	+
E6-E9.....	+	0	+	0	0
W1-W4.....	0	0	0	0	0
O1-O3.....	0	0	0	0	0
O4-O6.....	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.
- LESS THAN 30 RESPONDENTS.
* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

TABLE 13

POPULATION USING OPIATES (OTHER THAN HEROIN)
DURING PAST 30 DAYS
(PERCENTAGE)

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL	1	1	2	2	+
E1-E5	2	2	2	2	1
E6-E9	+	+	+	+	0
O1-O3	+	1	0	1	0
O4-O6	0	0	0	0	0
EUROPE					
TOTAL	2	2	1	*	+
E1-E5	2	3	2	*	1
E6-E9	1	2	0	*	0
O1-O3	0	0	0	*	0
O4-O6	0	-	0	*	0
PACIFIC					
TOTAL	1	2	2	2	1
E1-E5	2	3	3	2	1
E6-E9	0	0	0	0	0
O1-O3	+	1	0	-	0
O4-O6	0	0	-	-	0
OTHER LOCATIONS					
TOTAL	1	1	+	*	+
E1-E5	1	1	1	*	0
E6-E9	0	0	0	*	0
O1-O3	0	-	-	*	-
O4-O6	0	-	-	*	-
TOTAL WORLDWIDE					
TOTAL	1	2	2	2	+
E1-E5	2	2	2	2	1
E6-E9	+	1	+	+	0
W1-W4	0	0	0	-	*
O1-O3	+	1	0	1	0
O4-O6	0	0	0	0	0

+ LESS THAN HALF OF ONE PERCENT.
- LESS THAN 30 RESPONDENTS.
* NOT APPLICABLE.

NOTE: REGIONAL TOTALS INCLUDE W1-W4'S.

Drug Dependence

For the purpose of this analysis, a person is defined as having been physiologically drug dependent during the past 12 months if he or she falls in one or more of the following categories:

1. Used one of the following drugs nonmedically at least five times per week during the past 30 days: barbiturates/other downers, heroin, or other opiates.
2. Experienced sickness (i.e., withdrawal symptoms) because use of addictive drugs was stopped; symptoms include: "runny nose or eyes," "flushed or sweaty," "chills," "nausea or vomiting," "stomach cramps," "diarrhea," "muscle pains," etc.
3. Was detoxified because of drug use.

For the purpose of this analysis, a person is classified as psychologically drug dependent who experiences sickness (i.e., withdrawal symptoms) because he or she stopped use of one or more non-addictive drugs; the symptoms are the same as defined earlier for physiological addiction.

From the results obtained, it is estimated that 3 percent of DOD junior enlisted personnel were physiologically drug dependent and that a total of 4 percent were physiologically or psychologically drug dependent at some time during the preceding 12 months. The percentage of E1-E5's who were drug dependent is depicted in Table 14.

TABLE 14

DRUG DEPENDENCE (PERCENTAGE OF E1-E5 POPULATION)

TYPE OF DEPENDENCE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
PHYSIOLOGICAL	3	4	3	4	1
PHYSIOLOGICAL AND/OR PSYCHOLOGICAL	4	5	4	5	1

Consequences of Drug Use

The respondents were asked to indicate whether each of two consequences of nonmedical drug use had occurred during the past 12 months. Table 15 shows that 19 percent of the junior enlisted respondents reported suffering at least one of the consequences during the preceding 12 months.

TABLE 15

SELECTED CONSEQUENCES OF DRUG USE (PERCENTAGE OF E1-E5 POPULATION)

CONSEQUENCE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
USED MORE DRUGS THAN PLANNED	10	9	13	14	6
HIGH MORE THAN 1 DAY AT A TIME	17	16	22	24	9
TOTAL WITH ANY OF THE 17 CONSEQUENCES	19	18	25	27	11

The respondents were also asked to indicate whether each of 15 physical, social or work consequences had occurred because of their use of drugs during the past 12 months. Ten percent of the junior enlisted personnel reported suffering at least one of the 15 consequences during that period (Table 16).

Junior enlisted personnel who reported one or more of the 17 consequences¹ experienced them a median of three times.²

¹This analysis combines both groups of consequences.

²A person experiencing consequences (say) three times could have experienced one consequence three times, three different consequences one time each, or another combination.

TABLE 16
 SPECIFIC CONSEQUENCES OF DRUG USE DURING PAST
 12 MONTHS
 (PERCENTAGE OF E1-E5 POPULATION)

CONSEQUENCES	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
ILLNESS KEPT FROM DUTY 1 WEEK OR LONGER	2	3	1	2	+
DIDN'T GET PROMOTED	3	4	3	5	1
GOT LOWER SCORE ON EFFICIENCY OR PERFORMANCE REPORT	3	3	3	5	1
RECEIVED JUDICIAL OR ARTICLE 15 PUNISHMENT	4	5	4	5	2
ARRESTED FOR DRIVING AFTER USING DRUGS	1	2	1	2	1
ARRESTED FOR NON-DRIVING DRUG INCIDENT	4	4	4	6	2
INCARCERATED DUE TO DRUG USE	2	1	2	3	1
HURT IN ACCIDENT CONNECTED WITH DRUG USE	2	2	2	2	+
DRUG USE CAUSED ACCIDENT WHERE OTHERS HURT OR PROPERTY DAMAGED	1	1	2	2	1
SPOUSE THREATENED TO LEAVE	2	2	2	2	1
HIT SPOUSE OR CHILDREN	1	1	1	1	+
SPOUSE LEFT	1	1	1	1	+
ENTERED REHABILITATION OR TREATMENT PROGRAM	2	2	1	2	2
ATTENDED TRAINING OR EDUCATION PROGRAM	2	3	1	3	1
DETOXIFIED	1	1	1	1	+
TOTAL WITH ANY CONSEQUENCES ^a	10	11	13	15	5

^aPERCENTAGE OF POPULATION REPORTING AT LEAST ONE OF THE CONSEQUENCES DURING THE PAST 12 MONTHS.

+ LESS THAN ONE-HALF OF ONE PERCENT.

Work Impairment

Turning now to a more specific focus on work impairment because of drug use, four types of work impairment are considered: (1) "lowered performance," (2) "late for work or left early," (3) "did not come to work," and (4) "high while working."

The type of work impairment most frequently reported by junior enlisted personnel was "high while working" (19 percent); nearly one-half of the E1-E5 respondents indicating this had occurred reported experiencing this on 40 or more days during the preceding 12 months. Substantially lower proportions of E1-E5 respondents reported other work impairments, as shown in Table 17, and nearly all of them also reported being "high while working."

TABLE 17

WORK IMPAIRMENT BECAUSE OF DRUG USE
(PERCENTAGE OF E1-E5 POPULATION)

TYPE OF IMPAIRMENT	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
LOWERED PERFORMANCE	10	12	15	13	3
LATE FOR WORK/LEFT EARLY	6	8	8	8	2
DID NOT COME TO WORK	4	6	4	5	1
HIGH WHILE WORKING	19	21	26	25	8
TOTAL WITH ANY IMPAIRMENT	21	22	28	28	9

Section 3: ALCOHOL USE--PREVALENCE AND
CONSEQUENCES AMONG MILITARY PERSONNEL

Prevalence of Alcohol Use

The percentage of the population that drank any alcohol during the past 30 days is depicted in Table 18.

TABLE 18
POPULATION USING ALCOHOL DURING PAST 30 DAYS
(PERCENTAGE)

PAY GRADE GROUP	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
TOTAL WORLDWIDE	83	80	86	86	82
E1-E5	83	81	88	86	82
E6-E9	77	75	78	83	78
W1-W4	76	76	80	-	*
O1-O3	83	80	88	91	82
O4-O6	91	92	94	84	90

- LESS THAN 30 RESPONDENTS.

* NOT APPLICABLE.

The principal point derived from these data is that most military personnel (83 percent) drank at least occasionally. In general, the highest prevalence of drinking any alcohol was recorded by senior officers, followed by junior officers and junior enlisted personnel, senior enlisted personnel and, warrant officers.

For all respondents worldwide, beer was the most commonly consumed beverage; it was drunk by 73 percent of all military personnel at least once within the past 30 days, and by about one-fourth (26 percent) at least three times a week. Hard liquor (including mixed drinks) was consumed by about one-half of the respondents (51 percent) within the past 30 days, but only 8 percent drank hard liquor as often as three times a week. Wine was the least frequently consumed beverage: only 35 percent of the military personnel had drunk any wine during the past 30 days, and only 4 percent had done so as often as three times a week.

Regional differences in drinking patterns are generally slight with the exception that consumption of wine is more prevalent in Europe than in other regions.

Heavy Drinking

We define "heavy drinking" as consumption of eight or more drinks in a single day. Table 19 shows that beer was the beverage that was heavily consumed by the most respondents. On a typical day in which beer was consumed, 8 percent drank eight or more "drinks" (a "drink" is one 12 ounce can, bottle or glass). Heavy drinking of wine was rarely reported, (a "drink" is one four ounce glass), but heavy drinking of hard liquor was reportedly nearly as common as heavy drinking of beer; 6 percent of all respondents reported consuming eight or more drinks of hard liquor on a typical drinking day during the past 30 days.

TABLE 19

QUANTITY CONSUMED ON A TYPICAL DRINKING DAY
DURING PAST 30 DAYS--WORLDWIDE TOTAL
(PERCENTAGE OF POPULATION)

BEVERAGE/ FREQUENCY	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
BEER					
8-11 DRINKS	5	5	7	7	3
12 OR MORE DRINKS	3	3	5	4	1
WINE					
8-11 DRINKS	+	+	+	+	+
12 OR MORE DRINKS	1	1	1	1	1
HARD LIQUOR					
8-11 DRINKS	4	3	5	6	2
12 OR MORE DRINKS	2	2	3	2	1

+ LESS THAN HALF OF ONE PERCENT

Heavy drinking was reported almost exclusively by enlisted personnel. Twelve percent of E1-E5's and 4 percent of E6-E9's worldwide reported heavy drinking of beer; only 1 percent of each enlisted group reported heavy drinking of wine. The comparable figures for hard liquor were: E1-E5's, 8 percent;

E6-E9's, 3 percent. Only about 1 percent or less of each officer or warrant officer group worldwide reported heavy drinking of any beverage.

The preceding discussion was concerned with typical drinking during the past 30 days. Now we focus on the frequency that a person engaged in heavy drinking during the past 12 months. Table 20 shows that 21 percent of all respondents reported they had engaged in heavy drinking of beer at least one a week during the past 12 months; the comparable figures for wine and hard liquor were about 5 percent and 11 percent, respectively.

TABLE 20

HEAVY DRINKERS¹--WORLDWIDE TOTAL
(PERCENTAGE OF POPULATION)

BEVERAGE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
BEER	21	22	25	28	13-14
WINE	5-6	8	5-6	7	3-4
HARD LIQUOR	11	12	14	13	7-8

¹DEFINED AS A PERSON WHO DRANK EIGHT OR MORE 12 OUNCE CANS, GLASSES, OR BOTTLES OF BEER; EIGHT OR MORE FOUR OUNCE GLASSES OF WINE; OR EIGHT OR MORE DRINKS OF HARD LIQUOR IN A SINGLE DAY AT LEAST ONCE A MONTH DURING THE PAST 12 MONTHS.

The worldwide patterns of heavy drinking by pay grade group are as described previously for typical drinking, but the rates are higher. Heavy drinking was rarely reported by officers or warrant officers. Twenty-eight percent of E1-E5's and about 10 percent of E6-E9's reported heavy drinking of beer; the comparable figures for wine were 8 percent and about 1 percent of the E1-E5's and E6-E9's, respectively. Fourteen percent of the E1-E5's and about 5 percent of E6-E9's reported heavy drinking of hard liquor.

Adverse Physiological Effects

There is compelling evidence that a person consuming a daily average of five ounces or more of ethanol during a year is at high risk of developing severe medical problems (e.g., cirrhotic or precirrhotic conditions).¹ Based on this threshold of presumptive harm, 7.9 percent of all DOD respondents are at high risk. Table 21 depicts the data by Service and pay grade group.

TABLE 21

POPULATION AT HIGH RISK FOR SEVERE MEDICAL PROBLEMS (PERCENTAGE)

PAY GRADE GROUP	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
TOTAL	7.9	9.2	9.9	10.1	3.6
E1-E5	10.9	12.2	13.9	12.9	5.3
E6-E9	3.1	4.9	2.7	2.6	1.3
W1-W4	0.2	0	1.0	-	*
O1-O3	0.7	1.5	0.1	0.9	0.4
O4-O6	0.6	0	0	2.4	1.0

- LESS THAN 30 RESPONDENTS.

* NOT APPLICABLE.

Alcohol Dependence

For the purpose of this analysis, a person is defined as "alcohol dependent" who, during the preceding 12 month period, experienced one or more of the following symptoms during at least 48 of the 52 weeks: (1) tremors (shakes), (2) morning drinking, (3) impaired control, and (4) blackouts.

It is estimated that 7 percent of the military personnel worldwide were alcohol dependent during the preceding 12 months (Table 22). Alcohol dependency occurred predominantly among junior enlisted personnel (10 percent) and senior enlisted personnel (3 percent); it was rare among warrant officers and commissioned officers.

¹ Five ounces of ethanol is equivalent to approximately ten 12 ounce cans of beer, ten four ounce glasses of wine, or seven drinks of hard liquor (at 1.7 ounces of hard liquor per drink).

TABLE 22
ALCOHOL DEPENDENCE DURING PAST 12 MONTHS
(PERCENTAGE OF POPULATION)

PAY GRADE GROUP	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
TOTAL	7	8	9	11	4
E1-E5	10	11	12	14	5
E6-E9	3	3	5	4	2
W1-W4	+	0	0	-	*
O1-O3	1	1	+	5	+
O4-O6	+	0	1	1	1

+ LESS THAN HALF OF ONE PERCENT.

* NOT APPLICABLE.

- LESS THAN 30 RESPONDENTS.

The patterns shown are quite consistent with the heavy drinking patterns discussed previously. This is to be expected because of the substantial correlation between heavy drinking and alcohol dependency.

Consequences of Alcohol Use

The respondents were asked to indicate whether each of two consequences of alcohol use had occurred during the past 12 months. Table 23 shows that 23 percent of all respondents reported suffering at least one of the consequences.

TABLE 23
SELECTED CONSEQUENCES OF ALCOHOL USE DURING
PAST 12 MONTHS
(PERCENTAGE OF POPULATION)

CONSEQUENCE/ PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
BECAME DRUNK WITHOUT PLANNING TO	20	16	25	23	18
DRUNK MORE THAN ONE DAY AT A TIME	11	10	16	16	6
TOTAL WITH EITHER CONSEQUENCE	23	19	31	29	20

Junior enlisted personnel were the most likely to suffer at least one consequence, followed in turn by senior enlisted personnel, junior officers, senior officers, and warrant officers.

The respondents were also asked to indicate whether each of 15 physical, social, or work consequences had occurred because of their alcohol use during the past 12 months. Eleven percent reported suffering at least one of the 15 consequences during that period (Table 24).

Among those who reported that any of the 17 consequences¹ had occurred, they had occurred a median of three times.

Work Impairment

The percentage of the population reporting work impairment because of their alcohol use during the preceding 12 months is shown in Table 25. "Lowered performance" was the type of work impairment most frequently reported; it was reported by 22 percent of the total respondents and by 26 percent of E1-E5's and this occurred a median of two to three times. The figures on "total with any impairment" generally follow the patterns of heavy drinking discussed earlier. The patterns of impairment by pay grade group are in the following rank order by percentage suffering impairment: E1-E5's, E6-E9's, O1-O3's, O4-O6's, and W1-W4's.

¹This analysis combines the two groups of consequences.

TABLE 24

**CONSEQUENCES OF ALCOHOL USE DURING PAST 12 MONTHS--TOTAL DOD
(PERCENTAGE OF POPULATION)**

CONSEQUENCE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
ILLNESS KEPT FROM DUTY	2	2	2	2	1
1 WEEK OR LONGER.....	2	2	1	3	1
DID NOT GET PROMOTED.....	2	2	1	3	1
GOT LOWER SCORE ON EFFICIENCY OR PERFORMANCE REPORT.....	2	2	3	4	1
RECEIVED JUDICIAL OR ARTICLE 15 PUNISHMENT.....	2	3	2	3	1
ARRESTED FOR DRIVING AFTER DRINKING.....	3	3	3	5	2
ARRESTED FOR NON DRIVING DRINKING INCIDENT.....	2	3	3	4	1
INCARCERATED DUE TO DRINKING.....	3	2	4	5	1
HURT IN ACCIDENT CONNECTED WITH DRINKING.....	2	2	4	4	1
DRINKING CAUSED ACCIDENT WHERE OTHERS HURT OR PROPERTY DAMAGED.....	2	2	3	3	1
SPOUSE THREATENED TO LEAVE.....	2	2	2	2	1
HIT SPOUSE OR CHILDREN.....	1	1	1	2	1
SPOUSE LEFT.....	1	1	+	1	+
ENTERED REHABILITATION OR TREATMENT PROGRAM.....	2	2	2	2	1
ATTENDED TRAINING OR EDUCATION PROGRAM.....	2	2	2	3	1
DETOXIFIED.....	1	1	1	1	+
TOTAL WITH ANY CONSEQUENCE 1/.....	11	11	14	17	6

1/ PERCENTAGE OF POPULATION WITH AT LEAST ONE OF
THE CONSEQUENCES DURING THE PAST 12 MONTHS.
+ LESS THAN HALF OF ONE PERCENT.

TABLE 25

WORK IMPAIRMENT BECAUSE OF ALCOHOL USE DURING
PAST 12 MONTHS

(PERCENTAGE OF POPULATION)

IMPAIRMENT/ PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
LOWERED PERFORMANCE					
TOTAL	22	19	30	29	17
E1-E5	26	23	34	32	19
E6-E9	17	13	22	22	14
W1-W4	9	4	12	-	*
O1-O3	15	12	28	20	10
O4-O6	10	7	8	14	14
LATE FOR WORK OR LEFT EARLY					
TOTAL	13	13	17	16	10
E1-E5	16	15	21	17	12
E6-E9	9	9	10	15	7
W1-W4	2	2	0	-	*
O1-O3	7	8	9	5	5
O4-O6	4	1	7	8	5
DID NOT COME TO WORK					
TOTAL	5	6	5	5	2
E1-E5	6	8	7	6	2
E6-E9	2	2	3	3	2
W1-W4	1	1	0	-	*
O1-O3	0	0	0	2	0
O4-O6	1	0	0	0	2
DRUNK/HIGH WHILE WORKING					
TOTAL	11	11	16	15	6
E1-E5	15	16	21	19	7
E6-E9	5	4	7	7	3
W1-W4	1	1	0	-	*
O1-O3	3	2	6	1	2
O4-O6	3	0	7	0	3
TOTAL WITH ANY IMPAIRMENT					
TOTAL	27	24	35	34	20
E1-E5	31	29	40	38	24
E6-E9	19	16	25	25	16
W1-W4	9	4	12	-	*
O1-O3	17	15	29	21	12
O4-O6	12	7	14	15	15

- LESS THAN 30 RESPONDENTS.

* NOT APPLICABLE.

+ LESS THAN HALF OF ONE PERCENT.

Section 4: COMPARISON OF DRUG AND ALCOHOL PREVALENCE AMONG MILITARY AND CIVILIAN POPULATIONS

This analysis is restricted to the subpopulation at highest risk for nonmedical drug use in both military and civilian populations: persons 18 through 25 years of age. The data have been standardized with respect to the variables that are most closely correlated with nonmedical drug use: sex, age, marital status, and education. Standardization with respect to these variables serves to provide prevalence rates that are not biased by the differences in occurrence of these characteristics in the two populations. The specific procedures employed to standardize the data and the limitations in the analysis are described in the main report.

Table 26 shows the prevalence of nonmedical drug use among military personnel and comparable civilians, ages 18 through 25. Prevalence of current nonmedical drug use for military personnel is slightly lower or equal to civilian use for all drug types analyzed, with the exception of amphetamines or other uppers. Prevalence of annual use is lower for military personnel than civilians with respect to four drug types and higher than civilians for three drug types. There is, thus, no general pattern of nonmedical drug use being more prevalent for military personnel than civilians.

Regarding alcohol use, slightly higher proportions of military personnel than civilians drank at all during the past 30 days and the past year.

TABLE 26

PREVALENCE OF NONMEDICAL DRUG USE
AND ALCOHOL USE AMONG MILITARY PERSONNEL
AND COMPARABLE CIVILIANS--AGES 18-25
(PERCENTAGE OF 18-25 YEAR OLD POPULATION)

TYPE	MILITARY (n= 8224)	COMPARABLE ¹ CIVILIANS (n= 2022)
MARIJUANA/HASHISH		
PAST 30 DAYS	40	42
PAST 12 MONTHS	52	54
AMPHETAMINES OR OTHER UPPERS		
PAST 30 DAYS	10	4
PAST 12 MONTHS	21	12
COCAINE		
PAST 30 DAYS	7	10
PAST 12 MONTHS	18	23
HALLUCINOGENS		
PAST 30 DAYS	5	5
PAST 12 MONTHS	13	12
BARBITURATES OR OTHER DOWNERS		
PAST 30 DAYS	4	4
PAST 12 MONTHS	9	10
TRANQUILIZERS		
PAST 30 DAYS	3	3
PAST 12 MONTHS	9	12
HEROIN		
PAST 30 DAYS	1	1
PAST 12 MONTHS	3	1
ALCOHOL		
PAST 30 DAYS	84	82
PAST 12 MONTHS	93	90

¹ DATA STANDARDIZED WITH RESPECT TO SEX, AGE, MARITAL STATUS, AND EDUCATION. BASED ON SPECIAL TABULATIONS FROM THE 1979 NATIONAL SURVEY ON DRUG ABUSE.

TECHNICAL NOTE

This technical note contains a description of the sample design, the confidence limits, and the number of respondents.

Sample Design

The DOD stipulated that a sample be drawn of all active duty military personnel throughout the world from which reliable estimates of drug and alcohol use could be made with known degrees of error for each of the Military Services, for five pay grade groupings, and for three main geographical regions and "Other Locations." It was further stipulated that the response rate among sampled personnel be 80 percent or higher, without replacements.

Because of budgetary and time constraints, it was not possible to survey every servicemember in each of the more than 300 locations throughout the world. These considerations dictated a design that sampled both personnel and locations by probability means. A stratified multistage probability sample was subsequently developed and implemented. Both sites and personnel were randomly selected. Differential personnel sampling rates were used to obtain sufficient sample sizes in the various respondent subgroups. Sample weighting procedures were applied to put the complete respondent sample into balance; these are described in the main report.

The final sample size required for each Service by geographical region is shown in Table 27. The sample was composed of 19,582 military personnel stationed at 81 installations.¹ As shown in Table 28, the survey respondents were predominately male, white and between the ages of 18 through 25. As indicated also, the sample was very representative of all DOD personnel, worldwide, with respect to the characteristics shown. The population represented by the sample is depicted in Tables 29 and 30.

At each survey site, a random sample was drawn from the most current listing of all personnel assigned to the installation.² The random selection was made from all personnel

¹An installation was composed of all permanent parent and tenant units at a base, post, camp, station or ships in a designated location.

²The detailed sample selection procedures were designed to accommodate unique Service personnel accounting systems and local capabilities to produce the random sample.

TABLE 27
SAMPLE ALLOCATION

<u>REGION</u>	<u>NO. SITES</u>	<u>SAMPLE</u>
<u>ARMY</u>	(19)	(6,239)
CONUS	8	3,026
EUROPE	4	1,320
PACIFIC	5	1,548
OTHER	2	345
<u>NAVY</u>	(30)	(5,202)
CONUS	17	3,202
EUROPE	5	600
PACIFIC	7	1,174
OTHER	1	226
<u>MARINE CORPS</u>	(10)	(2,861)
CONUS	7	1,917
PACIFIC	3	944
<u>AIR FORCE</u>	(22)	(5,280)
CONUS	11	2,464
EUROPE	5	1,066
PACIFIC	5	1,284
OTHER	1	466
<u>TOTAL</u>	(81)	(19,582)
CONUS	43	10,609
EUROPE	14	2,986
PACIFIC	20	4,950
OTHER	4	1,037

TABLE 28

DEMOGRAPHIC CHARACTERISTICS OF SURVEY RESPONDENTS AND ALL DOD
MILITARY PERSONNEL

(PERCENTAGE OF POPULATION)

<u>CHARACTERISTIC</u>	<u>TOTAL SURVEY</u>	<u>DOD ACTUAL</u> ¹
<u>SEX</u>		
MALE	91	92
FEMALE	9	8
<u>RACE/ETHNIC</u>		
WHITE/CAUCASIAN	71	73
AFRO AMERICAN/BLACK	18	19
HISPANIC	5	4
ORIENTAL/ASIAN/PACIFIC ISLANDER	3	1
AMERICAN INDIAN/ALASKAN NATIVE	1	2
OTHER	2	1
<u>MARITAL STATUS</u>		
MARRIED	53	52
NOT MARRIED	47	48
<u>AGE</u>		
17 OR UNDER	1	1
18-25	55	56
26-29	15	14
30-34	13	13
35-39	10	10
40 OR OVER	6	6

¹ MARCH 1980: DEFENSE MANPOWER DATA CENTER.

TABLE 29
POPULATION REPRESENTED BY THE SAMPLE

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL	1,393,269	454,158	416,283	128,951	393,878
E1-E5	924,659	304,537	282,565	95,412	242,146
E6-E9	251,356	77,221	85,085	18,951	70,099
W1-W4	14,498	9,066	3,091	2,341	*
O1-O3	126,085	39,207	28,121	8,243	50,514
O4-O6	76,671	24,127	17,421	4,004	31,115
EUROPE					
TOTAL	287,004	190,205	21,625	*	75,174
E1-E5	194,521	131,295	13,485	*	49,741
E6-E9	63,700	42,299	4,467	*	16,934
W1-W4	2,979	2,713	267	*	*
O1-O3	16,879	9,407	1,976	*	5,497
O4-O6	8,924	4,491	1,431	*	3,002
PACIFIC					
TOTAL	165,471	36,263	45,596	39,388	44,224
E1-E5	103,543	19,225	24,553	29,281	30,484
E6-E9	40,275	11,252	13,211	6,531	9,281
W1-W4	2,000	802	851	347	*
O1-O3	11,668	2,692	3,464	2,425	3,086
O4-O6	7,984	2,291	3,517	803	1,374
OTHER LOCATIONS					
TOTAL	44,023	18,388	14,892	*	10,744
E1-E5	29,170	13,159	8,667	*	7,344
E6-E9	9,595	3,093	4,250	*	2,251
W1-W4	625	352	273	*	*
O1-O3	2,881	1,160	911	*	810
O4-O6	1,753	624	790	*	339
TOTAL WORLDWIDE					
TOTAL	1,889,766	699,013	498,395	168,338	524,020
E1-E5	1,251,893	468,216	329,269	124,693	329,715
E6-E9	364,926	133,866	107,013	25,482	98,564
W1-W4	20,103	12,933	4,482	2,688	*
O1-O3	157,512	52,465	34,472	10,668	59,907
O4-O6	95,332	31,533	23,159	4,808	35,833

* NOT APPLICABLE.

TABLE J
POPULATION OF E1-E5's REPRESENTED BY SAMPLE

GEOGRAPHICAL REGION	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	924,659	304,537	282,565	95,412	242,146
EAST.....	608,118	234,696	217,530	39,228	116,664
WEST.....	316,542	69,841	65,035	56,184	125,422
EUROPE					
TOTAL.....	194,521	131,295	13,485	*	49,741
GERMANY.....	155,380	131,295	*	*	24,085
ITALY.....	7,477	*	7,477	*	*
ENGLAND.....	14,282	*	653	*	13,629
SPAIN.....	17,382	*	5,355	*	12,028
PACIFIC					
TOTAL.....	103,543	19,225	24,553	29,281	30,484
HAWAII.....	29,426	5,628	10,135	10,477	3,186
JAPAN.....	40,576	3,590	5,994	18,805	12,187
KOREA.....	18,943	10,007	*	*	8,936
PHILIPPINES.....	10,170	*	3,995	*	6,175
GUAM.....	4,429	*	4,429	*	*
OTHER LOCATIONS					
TOTAL.....	29,170	13,159	8,667	*	7,344
PANAMA CANAL.....	5,976	5,976	*	*	*
ALASKA.....	14,527	7,183	*	*	7,344
GUANTANAMO BAY.....	8,667	*	8,667	*	*
TOTAL WORLDWIDE.....	1,251,893	468,216	329,269	124,693	329,715

* NOT APPLICABLE.

in pay grades E1 through O6 of the one designated Service permanently assigned to organizations included in the specified installation. The last two digits of the individual's Social Security Account Number were used as the device for random selection of the respondents. Not included in the population base from which a sample was drawn were those personnel in recruit or basic training and those personnel in units known or expected to be at sea or deployed away from the installation at the time of the questionnaire administration. Personnel selected for the sample could be excused from questionnaire administration only for the following authorized reasons:

- . on leave from the parent organization
- . on temporary duty away from the installation
- . absent without leave
- . assigned a permanent change of station
- . separated from the Service

Absences for any other reason were designated as "no-shows."

It is well known that a survey based on samples of a population can only approximate the level of accuracy that would be obtained if it were possible for the entire population to participate in the survey. Because of this, there is a need to know the precision of the estimates from a particular sample survey. The 95 percent confidence limits for any percentage estimate reported in this volume are provided later in this Technical Note. These confidence limits are particularly important where estimates are given for subgroups of the population. The reader should be aware that those subgroups with relatively few cases will have relatively greater margins of error than those subgroups with a larger number of respondents. This notably includes subgroups of officers and warrant officers. Regional data on officers should be viewed with particular caution, because of the small number of respondents in those subgroups. The number of respondents in each subgroup is depicted in Tables 31 and 32.

Confidence Limits and Significance of Differences

An important issue in all prevalence surveys based on data obtained from samples of a population is the extent to which one can be confident that the prevalence estimates obtained accurately reflect the true prevalence for the entire population. That is, if every servicemember responded to the questionnaire, would the prevalence rate be substantially different from that obtained from the sample of personnel surveyed?

For any particular percentage given in the prevalence

TABLE 31
NUMBER OF RESPONDENTS

GEOGRAPHICAL REGION/PAY GRADE	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	8,286	2,345	2,802	1,194	1,945
E1-E5.....	5,475	1,545	1,927	873	1,130
E6-E9.....	1,717	527	635	188	367
W1-W4.....	74	35	23	16	*
O1-O3.....	624	165	152	67	240
O4-O6.....	396	73	65	50	208
EUROPE					
TOTAL.....	2,329	923	557	*	849
E1-E5.....	1,547	660	361	*	526
E6-E9.....	476	175	128	*	173
W1-W4.....	18	14	4	*	*
O1-O3.....	163	46	32	*	85
O4-O6.....	125	28	32	*	65
PACIFIC					
TOTAL.....	3,766	1,076	1,084	624	982
E1-E5.....	2,531	659	738	478	656
E6-E9.....	836	283	245	94	214
W1-W4.....	37	19	13	5	*
O1-O3.....	223	69	59	29	66
O4-O6.....	139	46	29	18	46
OTHER LOCATIONS					
TOTAL.....	887	279	228	*	380
E1-E5.....	601	195	135	*	271
E6-E9.....	202	65	69	*	68
W1-W4.....	6	3	3	*	*
O1-O3.....	47	10	10	*	27
O4-O6.....	31	6	11	*	14
TOTAL WORLDWIDE					
TOTAL.....	15,268	4,523	4,671	1,818	4,156
E1-E5.....	10,154	3,059	3,161	1,351	2,583
E6-E9.....	3,231	1,050	1,077	282	822
W1-W4.....	135	71	43	21	*
O1-O3.....	1,057	290	253	96	418
O4-O6.....	691	153	137	68	333

* NOT APPLICABLE

TABLE 32

NUMBER OF E1-E5 RESPONDENTS

GEOGRAPHICAL REGION	TOTAL DOD	SERVICE			
		ARMY	NAVY	MARINE CORPS	AIR FORCE
CONUS					
TOTAL.....	5,475	1,545	1,927	873	1,130
EAST.....	3,612	1,236	1,379	492	505
WEST.....	1,863	309	548	381	625
EUROPE					
TOTAL.....	1,547	660	361	*	526
GERMANY.....	859	660	*	*	199
ITALY.....	181	*	181	*	*
ENGLAND.....	198	*	27	*	171
SPAIN.....	309	*	153	*	156
PACIFIC					
TOTAL.....	2,531	659	738	478	656
HAWAII.....	652	201	246	115	90
JAPAN.....	1,011	106	292	363	250
KOREA.....	545	352	*	*	193
PHILIPPINES.....	214	*	91	*	123
GUAM.....	109	*	109	*	*
OTHER LOCATIONS					
TOTAL.....	601	195	135	*	271
PANAMA CANAL.....	85	85	*	*	*
ALASKA.....	381	110	*	*	271
GUANTANAMO BAY.....	135	*	135	*	*
TOTAL WORLDWIDE.....	10,154	3,059	3,161	1,351	2,583

* NOT APPLICABLE.

data tables, we cannot know exactly how much error has resulted from sampling. However, reasonably good estimates can be made of the range within which the responses of the total population would fall. The estimation of confidence limits for the results of the survey is a complex statistical decision and procedure. The following formula has been used to determine asymmetric confidence limits at the 95% level of confidence for sample percentage estimates:

$$P_L = p' - 1.96 \left[P_L(1-p_L)/n \right]^{1/2} \quad (1.3)$$

$$P_U = p' + 1.96 \left[P_U(1-p_U)/n \right]^{1/2} \quad (1.3)$$

Where:

P_L = lower limit of the confidence interval

p' = the estimate based on the sample

n = the sample size

P_U = the upper limit of the confidence interval

Table 33 depicts the upper and lower confidence limits for sample estimates.

In comparing two sample estimates, it is important to determine whether the difference between the two estimates is statistically significant. That is, can the difference reasonably be attributable to sampling variations or is it "real." Table 34 displays, for various sample sizes, the minimum difference between two percentage estimates that would be required for the difference to be statistically significant at the .05 level of confidence. For example, if a percentage result is 20 percent for E1-E5's and 15 percent for E6-E9's and the respective sample sizes were 1,000 and 500, there would have to be a difference of at least 5.6 percent for it to be considered a real difference and not attributable to chance. Thus, for this example, the difference would not be statistically significant at the .05 level.

TABLE 33

CONFIDENCE LIMITS FOR SAMPLE ESTIMATES

OBSERVED PERCENTAGE														
1.0%		3.0%		5.0%		10.0%		20.0%		30.0%		40.0%		50.0%
-	+	-	+	-	+	-	+	-	+	-	+	-	+	±
0.9%	6.7%	2.3%	7.8%	3.3%	8.6%	5.4%	10.2%	8.3%	11.9%	10.2%	12.6%	11.5%	12.7%	12.4%
0.8%	3.8%	1.9%	4.8%	2.7%	5.5%	4.3%	6.7%	6.2%	8.1%	7.6%	8.7%	8.4%	9.0%	8.8%
0.7%	2.8%	1.7%	3.6%	2.4%	4.3%	3.6%	5.3%	5.2%	6.4%	6.2%	7.1%	7.0%	7.4%	7.3%
0.7%	2.2%	1.6%	3.0%	2.2%	3.5%	3.2%	4.5%	4.5%	5.5%	5.5%	6.1%	6.0%	6.3%	6.3%
0.6%	1.9%	1.5%	2.6%	2.0%	3.1%	3.0%	4.0%	4.2%	4.9%	5.0%	5.4%	5.4%	5.7%	5.6%
0.6%	1.7%	1.4%	2.3%	1.9%	3.0%	2.7%	3.5%	3.8%	4.5%	4.6%	5.0%	5.0%	5.2%	5.2%
0.6%	1.5%	1.2%	2.1%	1.8%	2.5%	2.5%	3.2%	3.5%	4.2%	4.3%	4.6%	4.5%	4.8%	4.8%
0.6%	1.4%	1.2%	2.0%	1.7%	2.3%	2.4%	3.0%	3.3%	3.8%	4.0%	4.3%	4.1%	4.5%	4.5%
0.5%	1.3%	1.1%	1.8%	1.6%	2.2%	2.3%	2.8%	3.2%	3.6%	3.7%	4.1%	4.1%	4.3%	4.3%
0.5%	1.1%	1.1%	1.7%	1.5%	2.1%	2.2%	2.7%	3.0%	3.4%	3.5%	3.8%	3.8%	4.0%	4.1%
0.4%	0.7%	0.8%	1.1%	1.1%	1.4%	1.6%	1.9%	2.2%	2.4%	2.6%	2.7%	2.8%	2.8%	2.8%
0.4%	0.6%	0.7%	0.9%	0.9%	1.1%	1.4%	1.5%	1.8%	1.9%	2.1%	2.2%	2.3%	2.3%	2.3%
0.3%	0.5%	0.6%	0.7%	0.8%	0.9%	1.1%	1.3%	1.6%	1.7%	1.8%	1.9%	2.0%	2.0%	2.0%
0.3%	0.4%	0.5%	0.6%	0.7%	0.8%	1.0%	1.1%	1.4%	1.5%	1.7%	1.7%	1.8%	1.8%	1.8%
0.2%	0.3%	0.4%	0.5%	0.5%	0.6%	0.7%	0.8%	1.0%	1.0%	1.2%	1.2%	1.2%	1.2%	1.3%
0.2%	0.2%	0.3%	0.4%	0.4%	0.5%	0.6%	0.6%	0.8%	0.8%	0.9%	1.0%	1.0%	1.0%	1.0%
+	-	+	-	+	-	+	-	+	-	+	-	+	-	±
99.0%		97.0%		95.0%		90.0%		80.0%		70.0%		60.0%		50.0%
OBSERVED PERCENTAGE														

n= 100

200

300

400

500

600

700

800

900

1000

2000

3000

4000

5000

10000

15000

TABLE 34

DIFFERENCES REQUIRED FOR SIGNIFICANCE ACCORDING TO SAMPLE SIZE

SIZE OF SAMPLES COMPARED	OBSERVED PERCENTAGE								OBSERVED PERCENTAGE							
	10% or 90%	20% or 80%	25% or 75%	30% or 70%	35% or 65%	40% or 60%	50%		10% or 90%	20% or 80%	25% or 75%	30% or 70%	35% or 65%	40% or 60%	50%	
3300 and 3300	1.9%	2.5%	2.7%	2.9%	3.0%	3.1%	3.1%		3.4%	4.6%	4.9%	5.2%	5.4%	5.6%	5.7%	
3000	1.9%	2.6%	2.8%	2.9%	3.0%	3.1%	3.2%		3.5%	4.7%	5.1%	5.4%	5.6%	5.7%	5.8%	
2500	2.0%	2.7%	2.9%	3.0%	3.2%	3.3%	3.3%		3.6%	4.8%	5.2%	5.5%	5.7%	5.9%	6.0%	
2000	2.2%	2.9%	3.1%	3.3%	3.4%	3.5%	3.6%		3.7%	5.0%	5.4%	5.7%	6.0%	6.1%	6.2%	
1500	2.4%	3.2%	3.4%	3.6%	3.7%	3.8%	4.0%		4.0%	5.3%	5.7%	6.0%	6.2%	6.4%	6.6%	
1000	2.8%	3.6%	4.0%	4.3%	4.4%	4.5%	4.6%		4.2%	5.6%	6.0%	6.3%	6.7%	6.9%	7.0%	
500	3.6%	4.9%	5.3%	5.6%	5.8%	6.0%	6.1%		4.5%	6.0%	6.6%	6.9%	7.2%	7.4%	7.5%	
									5.0%	6.8%	7.3%	7.7%	8.0%	8.2%	8.4%	
3000 and 3000	2.0%	2.6%	2.8%	3.0%	3.1%	3.2%	3.3%		5.9%	7.9%	8.5%	9.0%	9.5%	9.7%	9.9%	
2500	2.1%	2.8%	3.0%	3.1%	3.3%	3.4%	3.4%		8.0%	10.7%	11.5%	12.3%	12.8%	13.1%	13.3%	
2000	2.2%	2.9%	3.2%	3.3%	3.5%	3.6%	3.6%									
1500	2.4%	3.2%	3.5%	3.7%	3.8%	4.0%	4.1%									
1000	2.8%	3.7%	4.1%	4.3%	4.5%	4.6%	4.7%									
500	3.7%	4.9%	5.3%	5.6%	5.8%	6.0%	6.1%									
2500 and 2500	2.2%	2.9%	3.1%	3.3%	3.4%	3.5%	3.6%		3.6%	4.8%	5.2%	5.5%	5.7%	5.9%	6.0%	
2000	2.3%	3.0%	3.3%	3.5%	3.6%	3.7%	3.8%		3.7%	5.0%	5.4%	5.7%	5.9%	6.0%	6.2%	
1500	2.5%	3.3%	3.6%	3.8%	4.0%	4.1%	4.2%		3.8%	5.1%	5.5%	5.9%	6.1%	6.2%	6.4%	
1000	2.9%	3.8%	4.2%	4.4%	4.6%	4.7%	4.8%		4.1%	5.4%	5.8%	6.1%	6.4%	6.6%	6.8%	
500	3.7%	5.0%	5.4%	5.7%	5.9%	6.1%	6.2%		4.3%	5.7%	6.1%	6.6%	6.8%	7.0%	7.1%	
									4.6%	6.1%	6.7%	7.0%	7.3%	7.5%	7.7%	
									5.1%	6.8%	7.4%	7.8%	8.1%	8.3%	8.5%	
									5.9%	8.0%	8.6%	9.2%	9.5%	9.8%	10.0%	
									8.0%	10.7%	11.6%	12.3%	12.7%	13.2%	13.4%	
2000 and 2000	2.4%	3.2%	3.5%	3.7%	3.8%	4.0%	4.1%		3.8%	5.1%	5.5%	5.8%	6.0%	6.2%	6.3%	
1800	2.5%	3.3%	3.5%	3.7%	4.0%	4.1%	4.2%		4.0%	5.3%	5.7%	6.0%	6.2%	6.4%	6.6%	
1600	2.6%	3.4%	3.7%	4.0%	4.1%	4.2%	4.3%		4.2%	5.5%	5.9%	6.3%	6.6%	6.8%	6.9%	
1400	2.7%	3.5%	3.8%	4.1%	4.3%	4.4%	4.5%		4.3%	5.8%	6.2%	6.7%	7.0%	7.1%	7.3%	
1200	2.8%	3.7%	4.1%	4.3%	4.5%	4.6%	4.7%		4.7%	6.2%	6.8%	7.2%	7.5%	7.6%	7.8%	
1000	2.9%	4.0%	4.3%	4.5%	4.7%	4.8%	4.9%		5.2%	6.9%	7.5%	7.9%	8.2%	8.4%	8.6%	
800	3.2%	4.3%	4.6%	4.9%	5.1%	5.2%	5.3%		6.0%	8.0%	8.7%	9.3%	9.6%	9.9%	10.1%	
600	3.5%	4.8%	5.1%	5.4%	5.6%	5.8%	5.9%		8.1%	10.8%	11.8%	12.4%	12.9%	13.2%	13.5%	
400	4.2%	5.6%	6.0%	6.3%	6.7%	6.9%	7.0%									
200	5.7%	7.6%	8.2%	8.6%	9.0%	9.3%	9.5%									

(CONTINUED)

(CONTINUED)

TABLE 34 (CONTINUED)
DIFFERENCES REQUIRED FOR SIGNIFICANCE ACCORDING TO SAMPLE SIZE

SIZE OF SAMPLES COMPARED	OBSERVED PERCENTAGE					SIZE OF SAMPLES COMPARED	OBSERVED PERCENTAGE									
	10% or 90%	20% or 80%	25% or 75%	30% or 70%	35% or 65%		10% or 90%	20% or 80%	25% or 75%	30% or 70%	35% or 65%	40% or 60%	45% or 55%	50% or 50%	55% or 45%	60% or 40%
1800 and 1800	2.5%	3.4%	3.6%	3.8%	4.1%	4.2%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%
1600 and 1600	2.6%	3.5%	3.7%	4.1%	4.2%	4.3%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
1400 and 1400	2.7%	3.6%	4.0%	4.2%	4.4%	4.5%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
1200 and 1200	2.8%	3.8%	4.2%	4.4%	4.6%	4.7%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
1000 and 1000	3.0%	4.1%	4.4%	4.6%	4.8%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
800 and 800	3.2%	4.4%	4.7%	5.0%	5.2%	5.3%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
600 and 600	3.6%	4.8%	5.2%	5.5%	5.7%	5.9%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
400 and 400	4.3%	5.6%	6.1%	6.4%	6.8%	6.9%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%
200 and 200	5.7%	7.6%	8.2%	8.7%	9.0%	9.3%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
1600 and 1600	2.7%	3.6%	4.0%	4.2%	4.3%	4.4%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
1400 and 1400	2.8%	3.7%	4.1%	4.3%	4.5%	4.6%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%
1200 and 1200	2.9%	3.8%	4.3%	4.5%	4.7%	4.8%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%
1000 and 1000	3.1%	4.2%	4.5%	4.7%	4.9%	5.0%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
800 and 800	3.3%	4.4%	4.8%	5.1%	5.3%	5.4%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
600 and 600	3.6%	4.9%	5.3%	5.6%	5.8%	5.9%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%
400 and 400	4.3%	5.5%	6.1%	6.6%	6.8%	7.0%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%
200 and 200	5.7%	7.6%	8.3%	8.7%	9.2%	9.4%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
1400 and 1400	2.9%	3.8%	4.2%	4.4%	4.6%	4.7%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
1200 and 1200	3.0%	4.1%	4.4%	4.6%	4.8%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1000 and 1000	3.1%	4.3%	4.6%	4.8%	5.0%	5.2%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
800 and 800	3.4%	4.5%	4.9%	5.2%	5.4%	5.5%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%
600 and 600	3.7%	5.0%	5.4%	5.7%	5.9%	6.1%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
400 and 400	4.4%	5.8%	6.2%	6.7%	6.9%	7.1%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
200 and 200	5.8%	7.7%	8.3%	8.8%	9.2%	9.5%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%
1200 and 1200	3.1%	4.2%	4.5%	4.8%	5.0%	5.1%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%
1000 and 1000	3.2%	4.4%	4.7%	5.0%	5.2%	5.3%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
800 and 800	3.5%	4.7%	5.0%	5.3%	5.5%	5.7%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%
600 and 600	3.8%	5.1%	5.5%	5.8%	6.0%	6.2%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%
400 and 400	4.4%	5.9%	6.3%	6.8%	7.0%	7.2%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%
200 and 200	5.8%	7.8%	8.4%	8.9%	9.3%	9.6%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%